



CH120RFR

WIRELESS THERMOREGULATION KIT WITH REMOTE ACTUATOR

- Preset and ready-to-use kit to control the heating/cooling systems through its remote control relay
- Possibility to expand the relay (on board) for controlling the dehumidification separately
- Possibility to expand up to 8 temperature zones



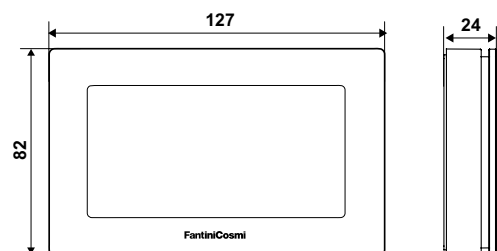
Kit composition	1 CH120RF	wireless thermostat
	1 CH175	remote wireless actuator

INSTALLATION

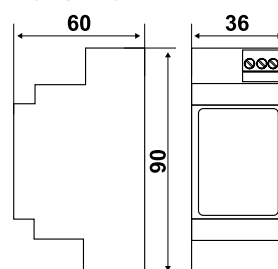
- THERMOSTAT
 - CH120RF has to be installed on the wall or in a 3 modules or round flush mounting box, at about 1.5 meters above the floor.
- ACTUATOR
 - Mounting on DIN bar 2 modules (1 module = 17.5mm).
 - Installation inside electrical cabinets.

DIMENSIONS mm

- THERMOSTAT



- ACTUATOR



HOMOLOGATIONS AND STANDARDS

- Complies with EN 60730-1 standards;
- Responding to Directive 2014/53 / EU (RED).
- ErP Classification (Reg. EU 811/2013 - 813/2013):
 - ◇ Class IV; 2%



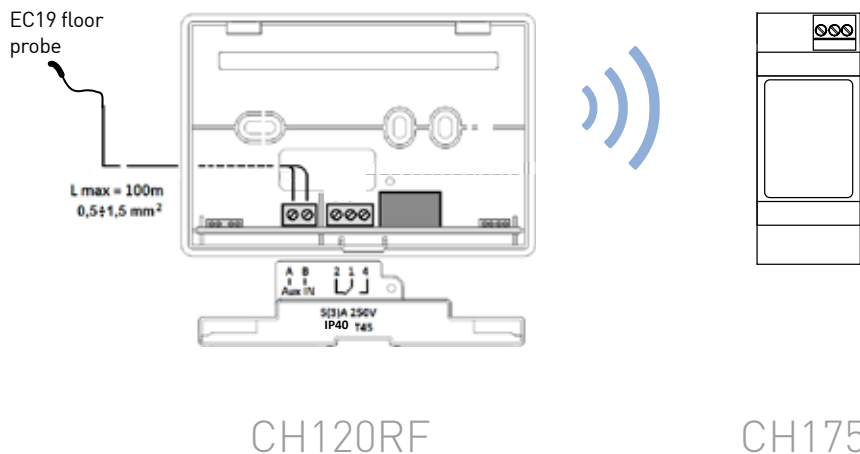
CH120RF ELECTRIC FEATURES

Power supply	2 batteries AA 1,5V
Contact rating	5(3)A 250 Vca
Type of action	1 B.U. (Micro-disconnection)
Output type	■ relay for heating/cooling or dehumidification (3 screw clamps, closed + open)
Software	A class
Electric insulation	Double insulation
Transceiver frequency	868Mhz

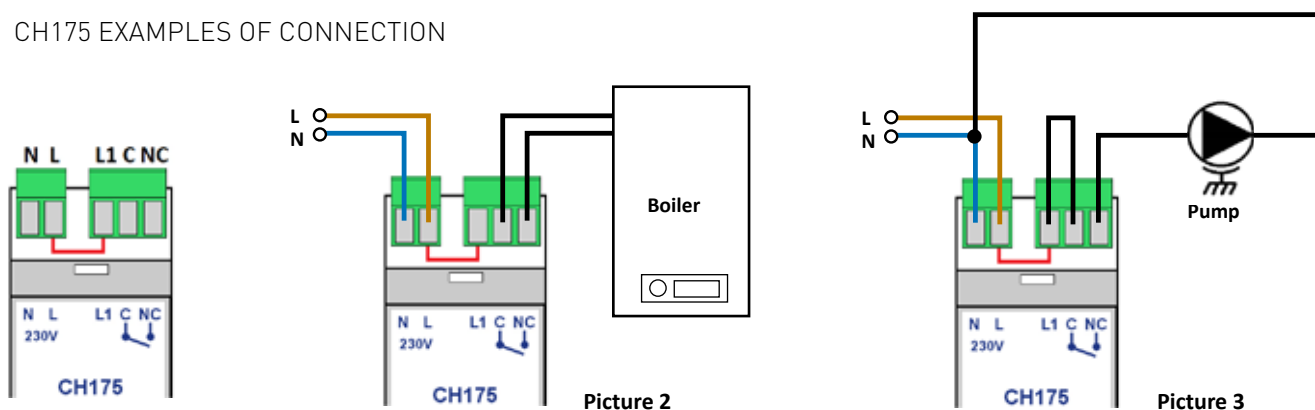
CH175 ELECTRIC FEATURES

Power supply	230Vca ±10% - 50Hz
Power consumption	20VA max (load excluded)
Transceiver frequency	868Mhz
Maximum radio frequency power transmitted	< 10mW
Contact rating	16(4)A - 250Vca
Maximum cable section	2,5 mm ²

■ ELECTRICAL CONNECTIONS



■ CH175 EXAMPLES OF CONNECTION



- Internal wiring: "L1" output terminal block is connected to the "L" power supply terminal block on the PCB.
- To control devices with "free voltage contact", follow the connection example in the Picture 2
- To control devices with "powered contact", follow the connection example in the Picture 3

CH120RF GENERAL FEATURES

Temperature regulation range	2 ÷ 40 °C, 0.1°C increase
Room temperature measured/displayed range:	- 50 ÷ + 50 °C
RH% measured/displayed range:	0 ÷ 100%
Differential	0.3 ÷ 5 K
Thermal gradient	4 K/h
Maximum room temperature	45°C
Radio frequency	868 Mhz
Maximum radio frequency power transmitted	< 10mW
Managements	<ul style="list-style-type: none"> ■ Zone heating, cooling and humidity control; ■ Maximum management of 15 devices directly connected; ■ Alarm / System lock management to overcome the minimum and maximum temperature threshold; ■ Cooling management by activating the dehumidifier through dew point control or via a predetermined UR% threshold; ■ Locally change the temperature set-point values and changes can be temporary or permanent; ■ Summer / Winter
Anti-condensate function	
Auxiliary input for floor probe management (EC19)	
Configurable relay output (heating only, cooling only, heating + cooling humidistat)	
Display of the status of other devices associated with the CH120RF (useful for starting)	
Correction of the offset of the temperature read	
Storage temperature	-10°C ÷ +60°C
Protection degree	IP40
Pollution degree	2
Screen lock	With password and for display cleaning

CH175 GENERAL FEATURES

Actuator 1 relay for control:	General and/or area heating
	General and/or area cooling
	General and/or area dehumidification
	Contact voltage
Wireless repeater:	ABS (white)
Operating temperature:	0 ÷ 50°C
Storage temperature:	-20 ÷ +70°C
Shape type	ABS (grey)
Protection degree:	IP20
Dimensions:	36x58x90 mm. - DIN-rail (2 modules)
Weight:	100G

CH120RF OPERATION

CH120RF preset thermostat directly controls the heating/cooling system through the CH175 remote control.

- The already preset components are shared as follows:
 - ◇ zone 1 = 1 CH120RF + 1 CH175

FUNCTIONING AS A SINGLE AREA:

- ☀ Tcom adjustable temp. from 2°C to 40°C
- 🌙 TECO adjustable temp. from 2°C to 40°C
- ⏻ TOFF, OFF temperature set in the “regulation” mode from 0 to 7°C to ensure frost protection function.
- Relative humidity RH% (adjustable from 30 to 70% or OFF);
- Summer/winter mode;

OPERATION AS A COMPONENT OF MULTIZONA INTELLICOMFORT + SYSTEM:

CH120RFR kit can be extended for the cooling and humidification functioning managing up to 8 temperature zones through the Fantini Cosmi configurator ref. 1590880, the Fantini Cosmi programmable thermostats ref. CH180RFWIFI, the boiler actuators or zone valve ref. CH175 and the actuators ref. O60RF to control more radiators.

- The CH120RF obtain the operating mode, the temperature set-point and relative humidity from CH180RF;
- The CH120RF can locally change the temperature set-point values and changes can be temporary or permanent;
- Possibility in areas controlled by CH120RF to enable or disable the cooling and dampening;
- Keypad lock with command sent by the CH180RF.

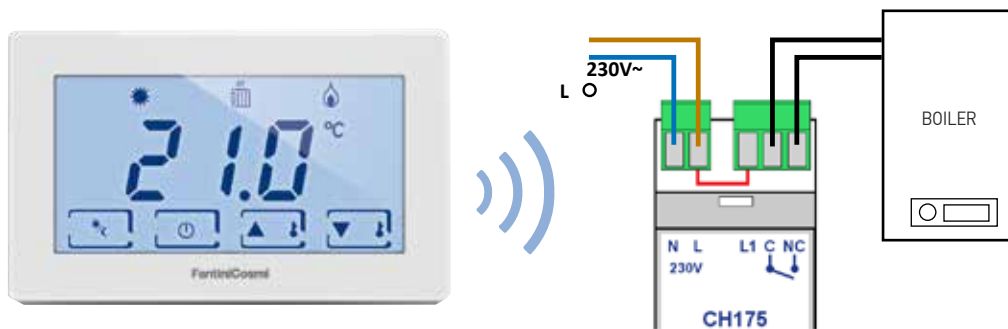


1	Activation status: heating, cooling
2	Summer/Winter mode
3	Operating mode
4	Battery status
5	Measured temperature Celsius / Fahrenheit
6	4 Multifunctional touch icons
7	Measured humidity + dehumidification activation
8	Received radio signal strength and various anomalies

CH120RFR KIT SYSTEM EXAMPLE

SYSTEM WITH RADIATORS

- CH120RF thermostat directly controls the boiler, when this is not directly accessible from the thermostat, through the CH175 remote control.



ACCESSORIES

CH120RFR kit is preset and ready-to-use and it can be also expanded with the following accessories:



CH180RFWIFI
WIRELESS TOUCHSCREEN ROOM PROGRAMMABLE THERMOSTAT
WITH WIFI CONNECTION



O60RF
WIRELESS RADIATOR ACTUATOR



CH175
1 RELAY WIRELESS ACTUATOR



EVWC8R
WIRING CENTER SUITABLE FOR 8 CHANNELS



EC19
FLOOR TEMPERARURE PROBE



1590880
CONFIGURATOR



1598089
STAND-ALONE POWER SUPPLY KIT

1598090
POWER SUPPLY KIT FOR CH120 -CH180 SERIES